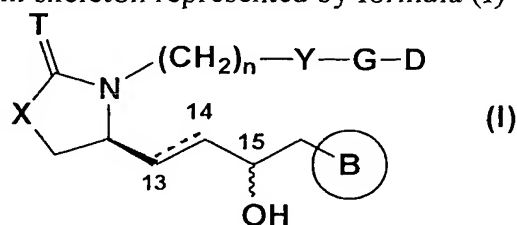


# ABSTRACT

The pharmaceutical composition comprising the compound of the invention having 8-azaprostaglandin skeleton represented by formula (I)



(wherein, all the symbols have the same meanings as that of the specification.) a salt thereof, a solvate thereof or a cyclodextrin clathrate thereof, or a prodrug thereof and them as active ingredient have EP<sub>4</sub> agonistic action and thus are considered useful for the prevention and/or treatment of immunological diseases, asthma, neuronal cell death, arthritis, lung failure, pulmonary fibrosis, pulmonary emphysema, bronchitis, chronic obstructive pulmonary disease, liver damage, acute hepatitis, nephritis, renal insufficiency, hypertension, myocardial ischemia, systemic inflammatory response syndrome, sepsis, hemophagous syndrome, macrophage activation syndrome, Still's disease, Kawasaki disease, burn, systemic granulomatosis, ulcerative colitis, Crohn's disease, hypercytokinemia at dialysis, multiple organ failure, shock and glaucoma, *etc.* Furthermore, the compounds also have an action of accelerating bone formation, so it is expected to be useful for the prevention and/or treatment of diseases associated with loss in bone mass, for example, primary osteoporosis, secondary osteoporosis, bone metastasis of cancer, hypercalcemia, Paget's disease, bone loss, osteonecrosis, bone formation after bone operation, alternative treatment for bone grafting.